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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHANNON, MICHAEL R

ART UNIT PAPER NUMBER

2614

DATE MAILED: 07/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,869

Applicant(s)

HOROWITZ ET AL.

Examiner

Michael R Shannon

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 14, line 12 the specification makes reference to "the set top box 202", however, this element is referred throughout the specification and in the figure drawings as reference number 210.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moroney U.S. Patent 6,532,593 in view of Russo U.S. Patent 6,732,366.

With regards to claim 1, the Moroney reference discloses in figure 4, a set-top box receiving and tuning programming content and an output (display) device for displaying the programming content, a method for recording a first stream included in the programming content while displaying a second stream on the display device without using the tuner (see Figure 4 and Column 7, lines 3-5 and lines 55-60). Moroney does not expressly disclose the act of storing without degrading the first

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stream. Russo suggests the idea of storing a digital program on high capacity storage before decoding (see Column 7, lines 40-45). At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the ability to store non-degraded content of Russo into the set-top box of Moroney. The suggestion/motivation for doing so would have been to conserve space on the storage medium and to not degrade the quality of the stored content. Therefore, it would have been obvious to combine Russo with Moroney for the benefit of the ability to store non-degraded content to obtain the invention as specified in claim 1.

With regards to claim 2, Figure 4 of Moroney teaches a demodulator for demodulating the first stream.

With regards to claims 3 and 4, Moroney inherently teaches the act of demultiplexing within the demodulator and processor in order to produce a single channel and subsequently storing that single channel onto the storage medium.

With regards to claim 5 and 14, the processor of Moroney acts as a decoder to decode and output digital video and audio to a D/A converter to provide analog output to a television with speakers (see column 7, lines 21-25).

Claim 6 is rejected based on Moroney paragraph 7, lines 3-5, where he states, "a path enables the processor to retrieve the stored data from the storage device for playback," which inherently means that he is bypassing the use of the tuner to view the previously recorded stream.

With regards to claim 7, 9, and 12, Moroney teaches, "the terminal receives compressed digital programming at the tuner via a cable satellite or terrestrial feed" (paragraph 6, lines 52-54).

With regards to claim 8, Moroney teaches no D/A conversion of the digital channel prior to storing on the storage medium. Moroney simply teaches a method of storing based on user-selected "video quality" via a transcoder. The transcoder can be seen as a simple processing device for a digital signal with no need to convert to an analog signal. The digital to analog conversion does not take place until just prior to output (see Figure 4).

With regards to claim 10, the Moroney reference discloses a tuner, demodulator, and processor to identify and select a single digital channel (see column 6, lines 52-59) as described above. Moroney does not expressly disclose the act of storing without degrading the selected channel. Russo suggests the idea of storing a digital program onto high capacity storage before decoding (see Column 7, lines 40-45). At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the ability to store a non-degraded channel of Russo into the set-top box of Moroney. The suggestion/motivation for doing so would have been to conserve space on the storage medium and to not degrade the quality of the stored content. Therefore, it would have been obvious to combine Russo with Moroney for the benefit of the ability to store non-degraded content to obtain the invention as specified in claim 10.

With regards to claim 11, Figure 5(a) and column 7, lines 46-60 of Moroney disclose a way for recording and/or viewing of a user-selected program.

With regards to claim 13, Moroney teaches the ability to both view and record a channel simultaneously (see column 7, line 58).

With regards to claim 16, see above rejection to claims 1, 2, and 9.

4. Claims 15, and 17-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Moroney U.S. Patent 6,532,593 in view of Elliott U.S. Patent 6,442,328.

With regards to claim 15, the Moroney reference discloses all basic set-top box/recorder requirements discussed above. Moroney does not expressly disclose the act of decoding and displaying a second pre-recorded channel, which is not being tuned by the tuner, while at the same time recording a tuned channel onto the storage medium. Elliot discloses the ability to decode and display pre-recorded programs, while at the same time, recording the current program being tuned by the tuner (see Figure 2 and column 7, lines 3-10). At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the ability to display pre-recorded programs and record a new program at the same time of Elliot into the set-top box of Moroney. The suggestion/motivation for doing so would have been to provide the recorded video signal to the output and the received real-time signal to the storage medium during a certain interval of time (see column 3, lines 52-58). Therefore, it would have been obvious to combine Elliot with Moroney for the benefit of the ability to display pre-recorded programs and record a new program at the same time to obtain the invention as specified in claim 15.

With regards to claims 17-20, the Moroney reference discloses all basic set-top box/recorder requirements discussed above, including a tuner, a demodulator, and a processor to serve as a transport demultiplexer. The Moroney reference does not expressly disclose that the transport demultiplexer and the storage medium should be selectively decoupled from the decoder so as to provide the ability to record new programming and view pre-recorded programming simultaneously. Elliot discloses the use of a selectively decoupled decoder, by use of a multiplexer (see Figure 2 and column 7, lines 3-20). At the time of the invention it would have been obvious to a person of ordinary skill in the art to selectively decouple the decoder from the transport demultiplexer and the storage medium, as taught by Elliot and incorporate into Moroney. The suggestion/motivation for doing so would have been to provide the recorded video signal to the output and the received real-time signal to the storage medium during a certain time interval by use of a multiplexer (see column 3, lines 52-58 and column 7, lines 3-20). Therefore, it would have been obvious to combine Elliot with Moroney for the benefit of the ability to display pre-recorded programs and record a new program at the same time by use of selectively decoupling the storage medium and decoder and the transport demultiplexer and decoder to obtain the invention as specified in claims 17-19. With regards to claim 20, Figure 4 and column 7, line 58 of Moroney teach the fact that the digital channel can simultaneously be directed to both the storage medium and the decoder (for output).

With regards to claim 21, the Moroney reference discloses all basic set-top box/recorder requirements discussed above. Moroney does not expressly disclose a

conditional access system determining whether the device may display the selected channel. Elliott discloses a conditional access module (see Figure 2) for use in determining whether the device may display the selected channel. At the time of the invention it would have been obvious to a person of ordinary skill in the art to utilize the conditional access module taught by Elliott in the set-top box/recorder or Moroney. The suggestion/motivation for doing so would have been to deny/allow use of certain, special channels by the user. Therefore, it would have been obvious to combine Elliott with Moroney for the benefit of the conditional access module to obtain the invention as specified in claim 21.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Krause, US Patent 6,304,714 discloses an in-home digital video unit using buffers with no decoding stage surrounding a high-access storage and archival storage.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Shannon whose telephone number is (703) 305-6955. The examiner can normally be reached on M-F 7:30-5:00, alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael R Shannon
Examiner
Art Unit 2614

MRS
July 6, 2004



JOHN MILLER
SUPERVISORY PATENT EXAMINER
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